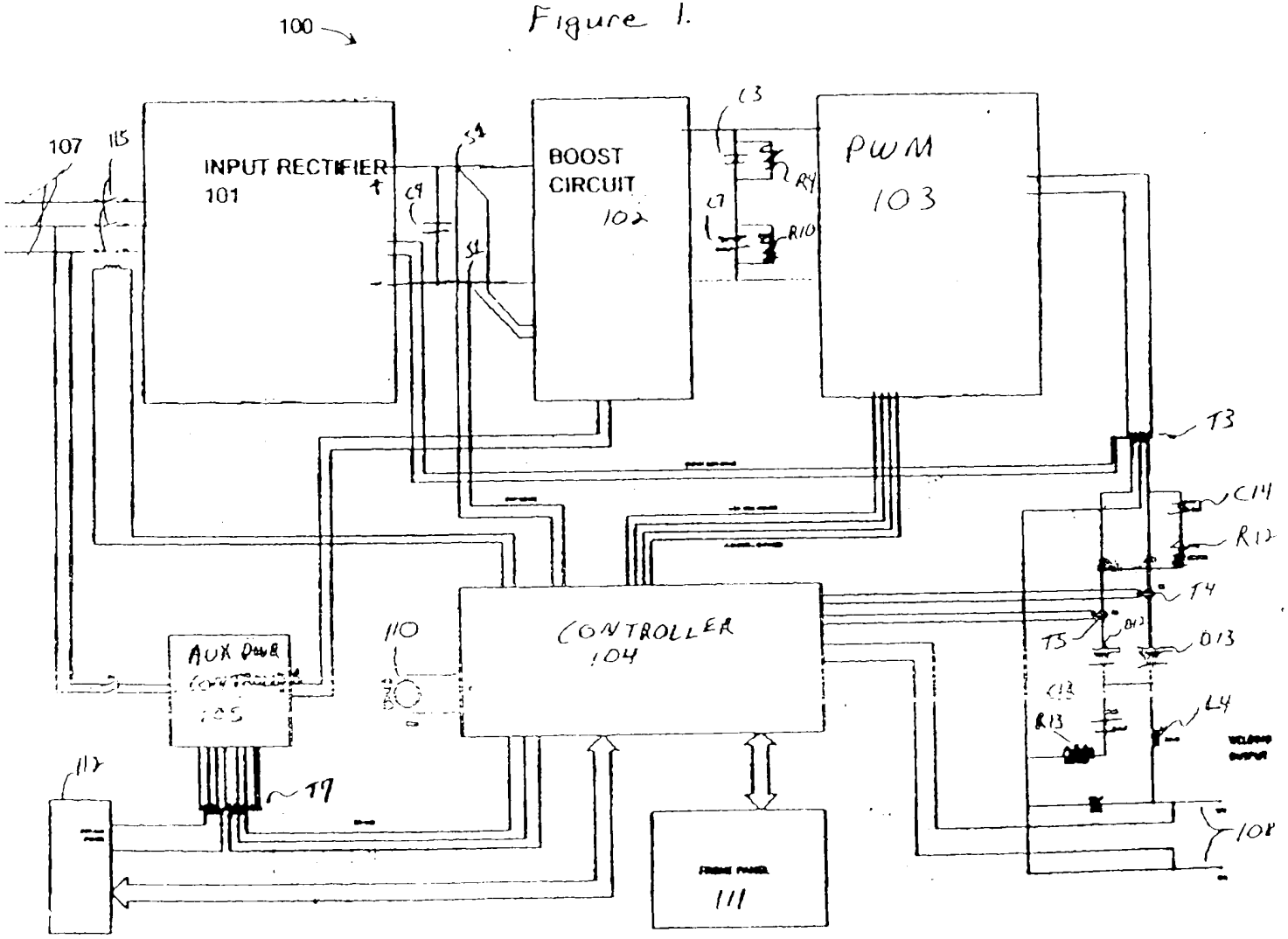
Figure 1.


100
107
115
INPUT RECTIFIER
101
C9
S1
S2
BOOST
CIRCUIT
102
C3
R9
C7
R10
PWM
103
T3
C14
R12
T4
T5
D12
D13
C13
R13
L4
110
CONTROLLER
104
AUX PWR
CONTROLLER
105
T9
117
FRONT PANEL
111
101

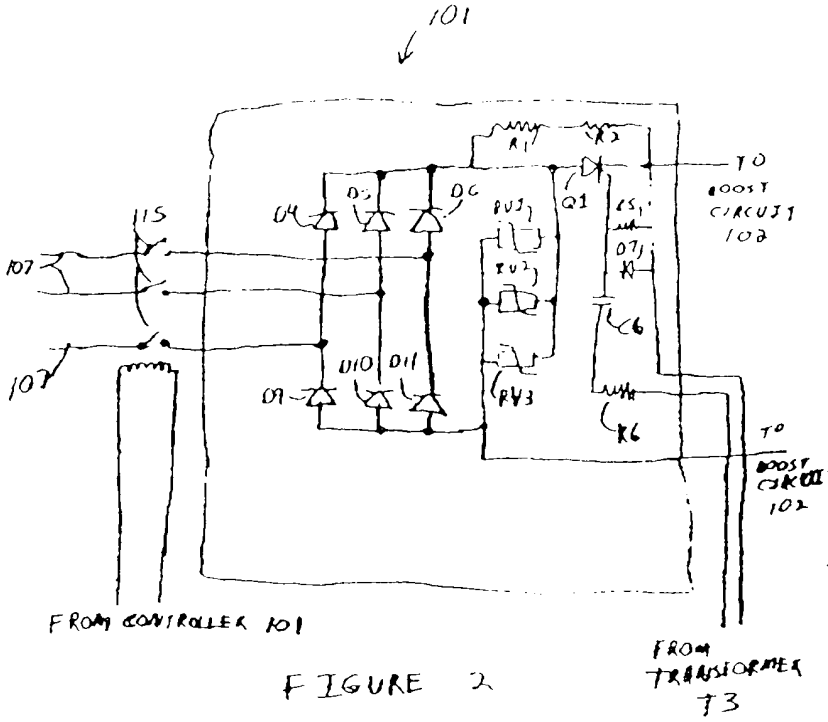
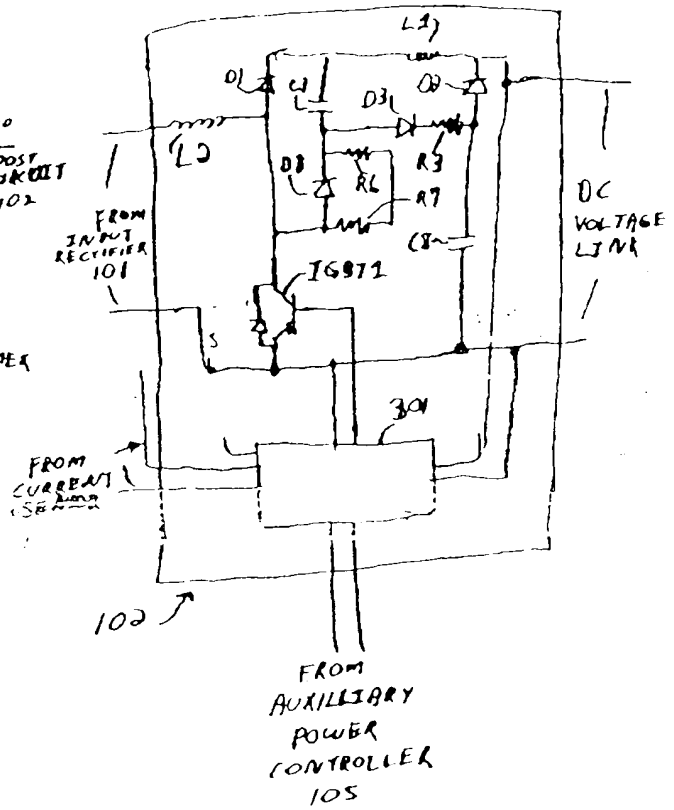


FIGURE 2

FIGURE 3



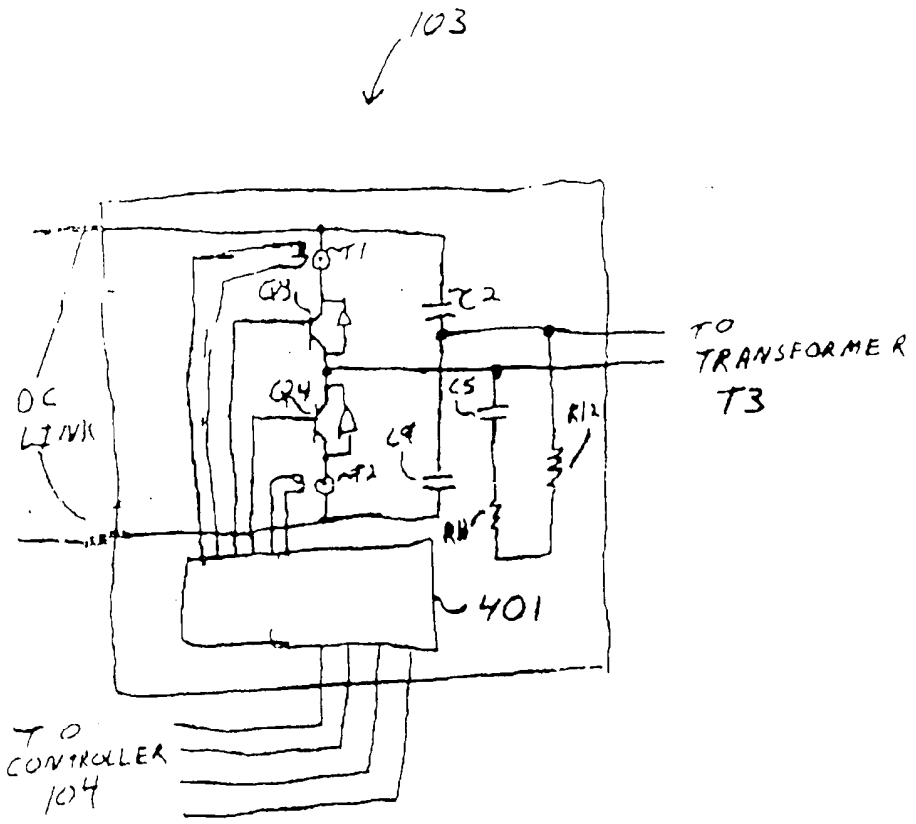

103
T1
C2
TO
TRANSFORMER
T3
Q3
Q4
C5
R12
C9
T2
DC
LINK
401
TO
CONTROLLER
104

FIGURE 4

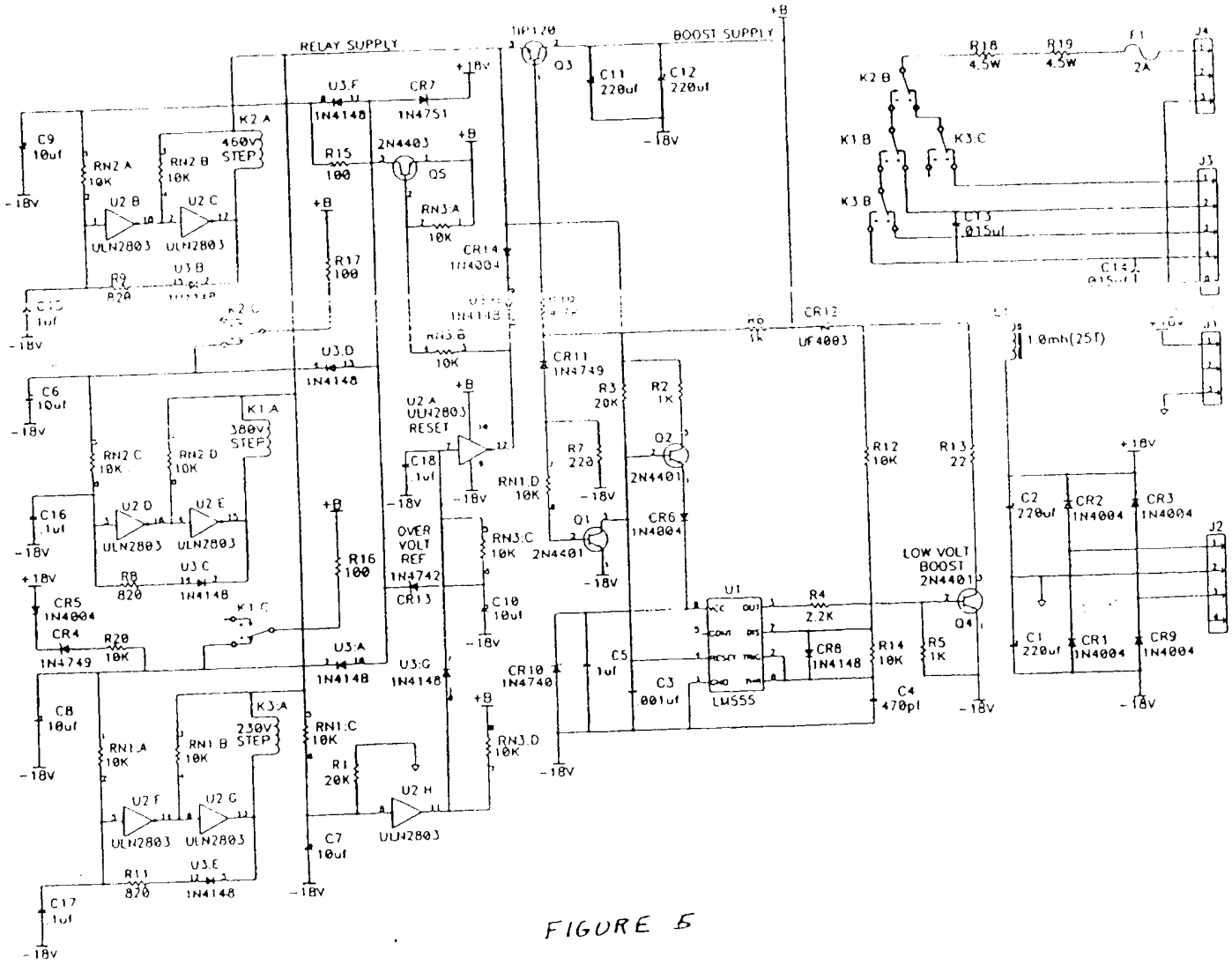

RELAY SUPPLY
BOOST SUPPLY
+B
-18V
TIP120
Q3
C11 220uf
C12 220uf
K2 A
460V STEP
RN2 A 10K
RN2 B 10K
U2 B
U2 C
ULN2803
C9 10uf
R9 820
U3 B
C15 1uf
U3:F
1N4148
CR7
1N4751
R15 100
2N4403
Q5
RN3:A 10K
R17 100
CR14 1N4004
U3:E
U3:D
C6 10uf
K1 A
380V STEP
RN2 C 10K
RN2 D 10K
U2 D
U2 E
C16 .1uf
R8 820
U3 C
CR5 1N4004
CR4 1N4749
R20 10K
K1 C
R16 100
U3:A
U3:G
C8 10uf
K3 A
230V STEP
RN1 A 10K
RN1 B 10K
U2 F
U2 G
R11 820
C17 1uf
RN1:C 10K
R1 20K
U2 H
C7 10uf
U2 A ULN2803 RESET
C18 1uf
OVER VOLT REF 1N4742
CR13
RN3:C 10K
C10 10uf
RN3:D 10K
CR11 1N4749
R3 20K
R7 220
RN1:D 10K
Q1 2N4401
R2 1K
Q2 2N4401
CR6 1N4004
CR10 1N4740
C5 1uf
C3 .001uf
U1
LM555
R4 2.2K
CR8 1N4148
R14 10K
C4 470pf
R12 10K
R13 22
LOW VOLT BOOST 2N4401
Q4
R5 1K
R18 4.5W
R19 4.5W
F1 2A
J4
K2 B
K1 B
K3 C
K3 B
J3
C13 .015uf
C14 .015uf
CR12 UF4003
L1 1.0mh(25T)
J1
C2 220uf
CR2 1N4004
CR3 1N4004
C1 220uf
CR1 1N4004
CR9 1N4004
J2

FIGURE 5